



Fabrication and Installation Manual

Introduction

U.S. Quartz Products, Inc., CaesarStone USA, is the leading supplier of quartz-based slabs (“Slabs”) to distributors, fabricators and installers of countertops in the United States. Fabricators fabricate countertops and other products from slabs purchased from CaesarStone USA or its distributors. Fabricators and Installers sell and install countertops manufactured from slabs to end users. CaesarStone USA gives a Residential Lifetime Warranty and a 10-year Limited Commercial Warranty to purchasers of countertops from certified fabricators with respect to the quality of the slab used by the fabricator to manufacture the countertop sold to the end user.

This manual is published by CaesarStone USA to inform fabricators of the recommendations of CaesarStone USA for fabricating countertops from slabs supplied by CaesarStone USA or its distributors to fabricators. This manual does not replace normal industry standards for the fabrication and craftsmanship – a basic knowledge of stone/quartz fabrication is required.

Any failure by a Fabricator to comply with the recommended methods of fabrication of countertops from slabs may result in claims by a end user against the Fabricator and refusal of a claim made by a End user under the Residential Lifetime Warranty and a 10-year Limited Commercial Warranty given by CaesarStone USA to the End user. Please direct any questions about the recommendations in this manual to your local CaesarStone representatives office. CaesarStone USA gives a Residential Lifetime Warranty and a 10-year Limited Commercial Warranty to the Fabricator in respect to each slab sold by CaesarStone USA or its distributors to the fabricator. The terms and conditions of the Residential Lifetime Warranty and a 10-year Limited Commercial Warranty to the Fabricator and End user are set forth in this manual.

CaesarStone® Fabrication Manual

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NOTE: This manual is not for general distribution.

This manual supersedes all previous manuals. Content is subject to change at any time without notice. The use of the term “Distributor” and “we” throughout this document refers to CaesarStone, U.S. Quartz Products, Inc. CaesarStone® is a registered trademark of CaesarStone Sdot Yam Ltd.

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Fact Sheets

Applications CaesarStone is ideal for a wide range of interior commercial and residential applications, including those subject to heavy use. Common CaesarStone applications include: kitchen countertops, bartops, vanities, interior cladding, and furniture pieces.

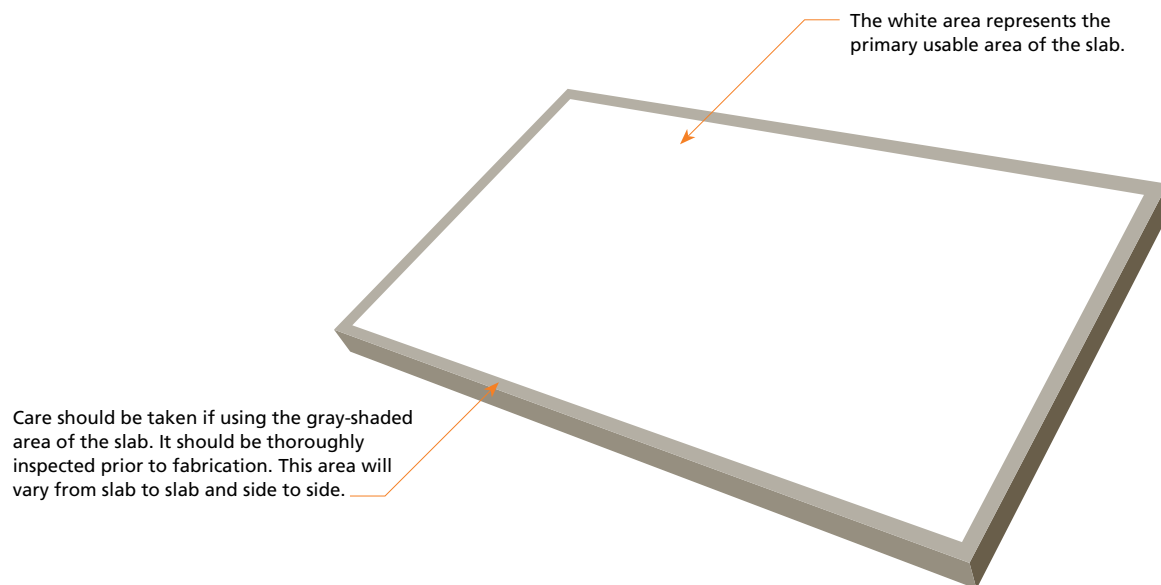
CaesarStone is not suitable for exterior use, or any areas that are exposed to direct sunlight UV radiation or excessive heat over 300° F.

Size CaesarStone is available in sizes that are ideal for kitchen counter and vanity tops. The slab sizes are:

- 56.5" (1,440mm) × 120" (3,060mm) – Standard
- Nominal thickness options of ¾" (2cm +/-1.5mm) or 1¼" (3cm +/-1.5mm).
- Some material is available in ½" (1.3cm) thickness.

NOTE: Not all colors are available in all sizes and thicknesses.

The slab dimensions are nominal only. These are to be used for storage and transportation purposes. Actual usable slab surface is slightly less per side, and varies from slab to slab. If you need to use the maximum width and length of the slab you must inspect the gray area around the perimeter for color, polish, transportation damage or any other defect that may be visible. If the slab proves to be unsuitable it should be exchanged for another prior to cutting.



Safety Guidelines CaesarStone has always been at the forefront of creating a safe work environment. We require that our fabricators and installers follow the same level of conscientiousness regarding safety. Adhering to the following simple safety rules will help to prevent an accident. "Safety is the key to our business success."

- ☐ For your safety, read instruction manuals before operating the different tools. Learn the tools' applications and limitations as well as the hazards specific to them.
- ☐ Keep guards in place and in working order.
- ☐ Ground all tools. If a tool is equipped with a three-prong plug, it should be plugged into a three-hole electrical socket. If an adapter is used to accommodate a two-prong socket, the adapter lug must be attached to a known ground. Never remove the third prong.
- ☐ Remove adjusting keys and wrenches. Form habits of checking to see that the keys and adjusting wrenches are removed from the tool before turning to "on".
- ☐ Keep work area clean. Cluttered areas and benches invite accidents.
- ☐ Don't use tools in dangerous environments. All tools that may be exposed to water or moisture must be equipped with a Ground Fault Circuit Interrupter (GFCI). Keep area clean, dry, well-ventilated and well-lit.
- ☐ Children and visitors should be kept at a safe distance from the work area.
- ☐ Make workshop childproof with padlocks, master switches or by removing starter keys.
- ☐ Don't force tools. A tool will do the job better and safer at the rate for which it was designed.
- ☐ Use the right tools. Don't force a tool or attachment to do a job for which it was not designed.
- ☐ Wear proper apparel – loose clothing, gloves, neckties, rings, bracelets and other jewelry may get caught in moving parts. Non-slip footwear is recommended. Wear hair-protective covering to contain long hair. Wear ear/nose protectors and safety shoes.
- ☐ Always wear a dust mask and follow U.S. Regulations for proper ventilation – CaesarStone dust contains silica which can be hazardous to your health. Always shape and cut material with wet tools, reducing the amount of airborne particles to be inhaled.
- ☐ Always use safety glasses or approved eye protection. Everyday eyeglasses only have impact-resistant lenses; they are not safety glasses.
- ☐ Use clamps or a vise to secure work when necessary, freeing both hands to safely operate the tool.
- ☐ Don't overreach. Keep proper footing and balance at all times.
- ☐ Maintain tools in top condition. Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories.

Handling The slabs are best loaded/unloaded from a container or truck with a forklift or lifting device capable of handling at least 2,000 lbs. (900kg).

Because of the weight, proper safety shoes and gloves should be worn.

$\frac{3}{4}$ " (2cm) material weighs 485 lbs (220kg). $1\frac{1}{4}$ " (3cm) weighs 727.5 lbs (330kg).

Handle slabs either singularly or in multiples of two. Use clamps or sling straps and lift the slabs face-to-face. For better grip, take care to clasp the slabs from the back side (while face-to-face).

Warning: Keep a safe distance when handling/lifting the slabs.

Vehicle Loads It is the responsibility of the Driver to ensure that the load is within the legal carrying capacity of the vehicle. We have no way of determining this at our premises. As a guide you must allow approximately 485 lbs. (220kg) per 2cm slab and 727.5 lbs. (330kg) per 3cm slab, plus the weight of any other items already loaded on the vehicle.

Securing the Load It is the responsibility of the Driver to ensure that the load is fully supported and safely secured to the vehicle prior to leaving our premises. The Distributor will not secure the load to your vehicle.

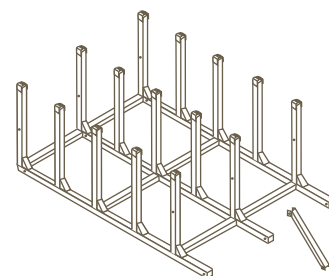
Storage Slabs must be stored in a manner that prevents warping. Use at least two support beams at an angle of 15° from the vertical, measuring a height of 50" (1,300mm), and at a distance of 70" (1,800mm) apart.

Slabs should be stored so that the product is kept in a perfectly uniform manner that minimizes warping. Care must be taken to store CaesarStone slabs in a manner that allows for easy identification of color and batch numbers.

Slabs must always be stored in a way that the polished surface is not exposed to the sun. It is not necessary to store the slabs in a shaded area, but it is necessary to keep the last slabs in each rack in a position in which the backside is facing out. Storage temperatures should not exceed 129°F.

There should be no more than 20 slabs to each rack with the slabs face-to-face and back-to-back.

NOTE: CaesarStone is a heavy material that can cause serious injury or death if not stored or handled properly. It is recommended that all slabs be secured during storage to maintain a safe working environment including adherence to any local laws and regulations.



Visual Slab Inspection Performing a visual inspection for defects or color matching is essential when working with CaesarStone and should be a standard practice before cutting. Complete the following slab inspection steps as a guide to visual inspection for defects:

- | | | |
|--|--|--|
| ☐ Hairline cracks | ☐ Slab-to-slab color match | ☐ Color consistency within the sheet |
| ☐ Quartz pattern irregularity | ☐ Thickness tolerance 1.5mm | ☐ Warpage: length $\frac{1}{8}$ " (3mm), width $\frac{1}{16}$ " (1.5mm) |
| ☐ Irregular spots | ☐ Inconsistent gloss levels | ☐ Face side pits/voids/blemishes |

NOTE: We will not accept any claims for any of the above if the slab is modified in any way whatsoever. The Fabricator is responsible for determining if the slabs are fit for purpose. If they are not, they should be exchanged before the slabs are cut or modified in any way.

NOTE: Length warp should be checked using a full-length straight-edge when the slab is placed horizontally.

Green Label All material defined with a green label may include visual imperfections in the surface. It is your responsibility to ensure that any defect is cut around and not included in the final product. We always recommend that the end customer is shown the slab prior to fabrication.

Color Match An essential element of slab inspection is checking for color match. The composition of CaesarStone produces slight color variations between production cycles due to the innate and complex blending of natural minerals – a characteristic inherent in the product. Follow the strict guidelines below:

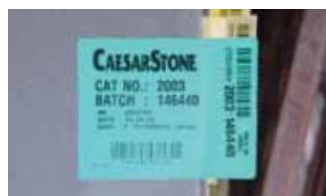
Batch Numbering Take all the slabs for the job from the same batch number. This should ensure a color match, however a visual inspection of the slabs is recommended to confirm consistency in color shading. Since the slabs are 93% natural quartz each slab is unique and must be checked for shade and quartz distribution. The batch number is on the label affixed to all slabs. If this label is removed, the batch number can be found printed on the back of the slab.

Picture Guide (slab back picture)

- ① Color number ② Batch number ③ Slab number ④ Production Date

Trial Color Matching Always do a visual color match. Before cutting, visually inspect the slabs to ensure that an acceptable color match is achieved. When doing a trial color match, the final visual inspection must be done under the same (similar) lighting conditions that will be found at the job site. We strongly recommend that you do not have slabs from different batch numbers butting up to each other.

Quartz Pattern Irregularity The manufacturer of CaesarStone has engineered its products to have random distribution throughout the slab. The nature of "random distribution" is such that sometimes particles will congregate in one area or will be segregated in another. If any obvious irregular distribution of particles is apparent in the slab, the fabricator must determine if the slab is suitable. If the slab is found to be unsuitable, it should be exchanged prior to cutting.



Slab Sticker Identification Both Yellow and Green slab sticker labels contain important information pertaining to factory production which can be useful through the transportation, distribution, fabrication, installation, and troubleshooting processes.

NOTE: All batch numbers should be recorded for future reference.



Fabrication Instructions

Tools and Safety Equipment

It is critically important that all fabricators wishing to fabricate CaesarStone have the proper tools and safety equipment to produce a quality finished product safely and efficiently. Below is a list of tools and safety equipment that are either essential or recommended to meet this objective.

Basic Tools

- ☐ Bridge saw
- ☐ Electric/pneumatic polisher (variable speed preferred)
- ☐ Diamond grinding wheel
- ☐ Diamond polishing pad
- ☐ Grinding stone
- ☐ Core bits
- ☐ Diamond contour blade
- ☐ Wet profiling machine (edge router)
- ☐ Stone carts/dollies
- ☐ A-Frame/storage racks
- ☐ Fabrication stands
- ☐ Air compressor
- ☐ Seaming clamps
- ☐ Water source

Advanced Tools

- ☐ Water jet
- ☐ CNC
- ☐ Automated profiler
- ☐ Diamond jig saw

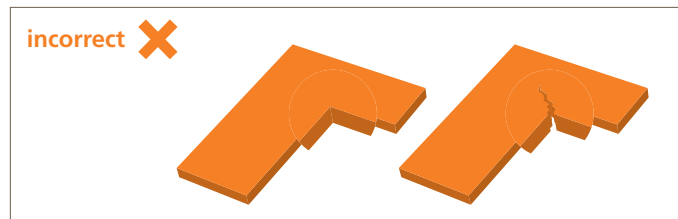
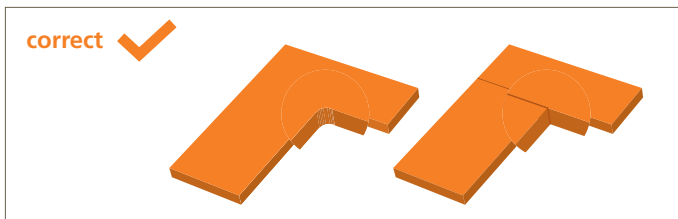
Basic Safety Equipment

- ☐ First-Aid kit
- ☐ Safety glasses
- ☐ Dust masks
- ☐ Work gloves
- ☐ Aprons
- ☐ Ear plugs

Basic Fabrication Guidelines

The following guidelines should be followed to ensure a high quality product:

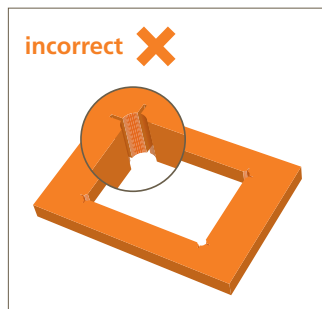
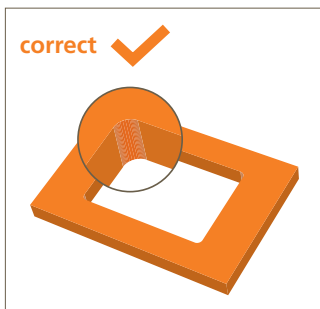
- ☐ Do not change the original surface finish of the slabs by re-polishing, honing, sealing, or otherwise altering the factory finish.
- ☐ To avoid overheating the slab, only water-cooled tools should be used for cutting, drilling, and polishing CaesarStone®.
- ☐ Do not cut square corners (cross cut) as this will create stress points in the slab and may result in cracking.
- ☐ When cutting an inside corner, always use a core bit to avoid damaging the corner area with the cutting disc. Damage to the radius area will create a stress point.
- ☐ Any internal angled corner must be radiused. Cut with the saw up to the joint of the drilled hole, leaving the drilled hole intact. Avoid dry grinding/polishing of the corner since overheating the area may result in a crack.



Inside Corners In the case of an angular shaped kitchen (L- or U-shaped), the surfaces of the countertop should be fabricated from a single slab. Inside corners must have a minimum $\frac{3}{8}$ " radius.

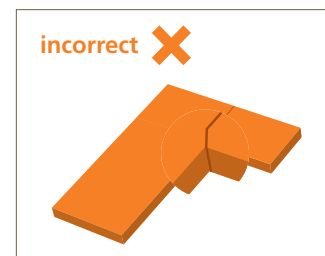
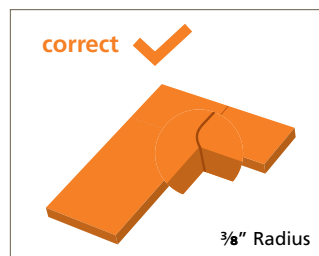
Cutouts

- If the distance between the cutout and a joint is less than 6", the area needs to be supported. This can be achieved by ensuring that all joints are placed at the junction of the base cabinets or a solid slat be fitted under the joint.
- Cross cutting should be avoided. When preparing a cutout always use a core bit. Avoid damaging the drill area with a cutting disk.
- Damage to the drilled area can result in stress points that may lead to hairline cracks. All cuts should be done using only wet diamond cutting tools to avoid generating excessive heat, which could also result in hairline cracks.
- Always allow an extra $\frac{1}{8}$ " between the appliance and the edge of the cutout for expansion.



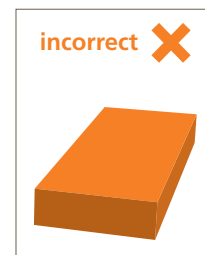
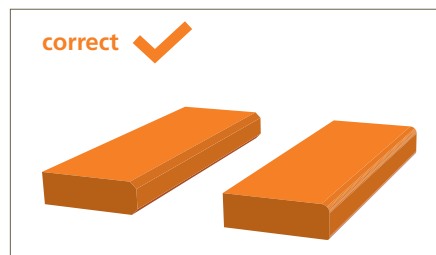
Seams

- If a straight seam is not used, any internal angled corner in the seam must have a $\frac{3}{8}$ " radius.
- All seams should be made level by adjusting the material before adhesive sets.
- **Do not** surface polish seams to make them even/level.
- Use a state-of-the-art seam setter tool to make seams as narrow and inconspicuous as possible. Seams should not be more than $\frac{1}{16}$ " wide.



Edge Detail Our recommended minimum edge profile is a $\frac{1}{8}$ " bevel. Our preferred minimum edge profile is a $\frac{1}{8}$ " (3–4mm) Pencil Round edge.

NOTE: Chiseled or hammered edges are not approved edge details.



*Do not use square edges.

Polishing Edge Profiles Polishing any CaesarStone edge profile should be done in a progressive manner using only granite or marble diamond polishing pads. CaesarStone recommends the use of premium quality pads and use of plenty of water for best polishing results. The quality of the pads being used will affect the time required to complete polishing and the quality of the finish. Polishing CaesarStone should be done by starting with a surface that is smooth, clean, and free from any residual adhesive.

NOTE: Care must be taken not to overpolish edges in excess of the factory surface polish.

Recommended polishing process for CaesarStone:

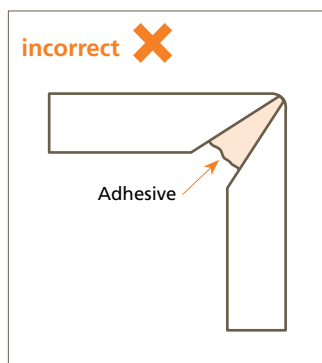
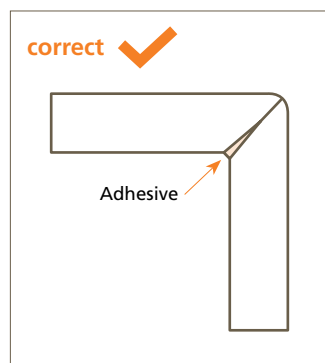
- Honed finish 100, 200, 400-grit diamond pad
- Polished finish 100, 200, 400, 500–800, 1500–2000, 2000–3000-grit diamond pad

These recommendations are a guideline for achieving a polish equal to the factory surface polish. The type of tools, diamond pads, and fabrication techniques will affect actual polishing results. When polishing the edge profile, use water-cooled tools. Dry-polishing the edge profile may cause overheating, leaving the edge prone to chipping. Excessive heat undermines the physical structure of the slab, and although not visible to the naked eye, micro-fissures are formed, leading to chipping upon impact, discoloration and an uneven polish.

- Use lower RPM to be used on polishers when using 1000-grit or higher diamond polishing pads.
- Do not use stone “buff” pads on CaesarStone.
- Do not overpolish edge details in excess of the factory surface polish.

Mitered Edges

- Mitered edges should be done at a 45° angle to ensure maximum strength. The joint should be clean, flush, and parallel
- Mitered edges have the greatest area of weakness and are most prone to chipping. (Our recommended minimum edge profile is a 1/8” bevel. Our preferred minimum edge profile is a 1/8” (3–4mm) Pencil Round edge)
- Chipping is most prevalent where the application of the adhesive is not evenly distributed throughout the joint.



- Do not cut edges at less than 45° as this makes the edge prone to physical damage such as chipping.
- Incorrect angles restrict the type of edge that can be produced, since the larger the edge profile, the larger the joint that is visible.

NOTE: Ensure that the adhesive is thoroughly distributed throughout the joint for maximum strength.

NOTE: Chipping of the countertop edge in this situation is not covered by our warranty.

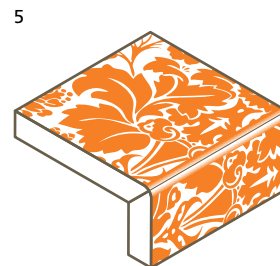
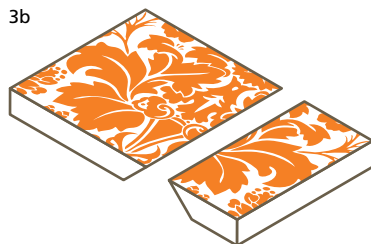
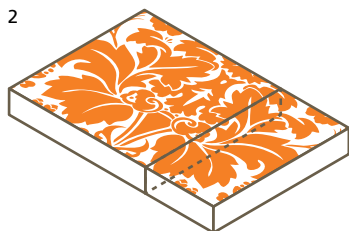
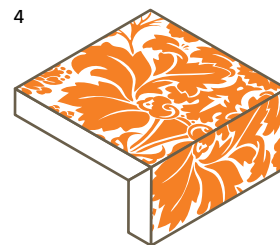
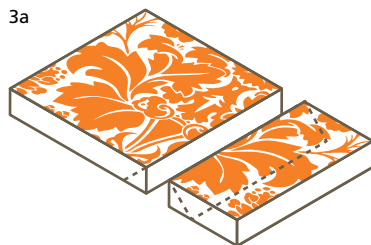
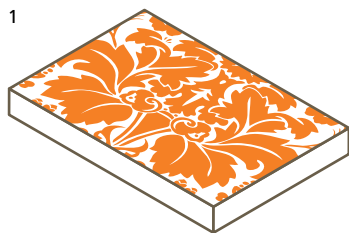
Motivo™ Edge Profile Fabrication Method

There are three methods of fabrication edge profiles with Motivo™, as described on these pages.

A. Fabricating Miter Edge Profiles

Fabricate 45° miter edge profiles using Motivo™ for both surface and the edge in order to create visual continuity of the pattern.

1. Plan the cutting of the slab so that the cut piece can be attached to the surface at a 90° angle and maintain visual continuity of the pattern.
2. Cut the slab at the appropriate location.
3. Fabricate a 45° miter edge profile from the two cut pieces.
4. Glue the miter edges together to create 90 ° angle with a 45° miter edge.
5. Shape the miter edges with a 3mm (1/8") radius bevel.



Motivo™ Finish



Textured Finish

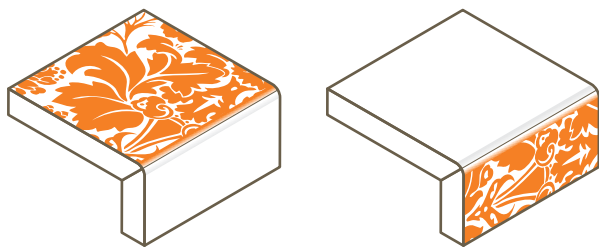


Polished Finish

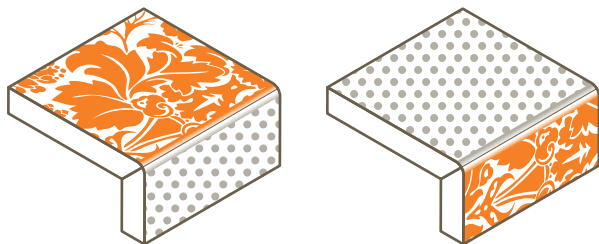
B. Fabricating Miter Edge Profiles with Combined Surface Finishes

Miter edge profiles can also be fabricated using a combination of Motivo™ and either polished or Textured Surfaces, in order to create a new, fresh-looking concept.

Combined Motivo™ and Polished Miter Edge Profiles



Combined Motivo™ and Textured Miter Edge Profiles



C. Fabricating Regular Edge Profiles

An additional method of fabricating Motivo™ edge profiles is by polishing the natural edge of the full thickness of the slab with polishing pads and/or brushes to create either a Polished or a Textured Finish.

Polished Edge Profile



Textured Edge Profile



NOTE: The Polished edge profiles is the preferred method of regular edge profile fabrication, as the polished area of the surface is greater than the Textured area.



Motivo™ Finish



Textured Finish



Polished Finish

Recommended procedure for polishing Texture Finish edges

The natural, unique look of **texture** finish combines a low level of gloss, making it beautiful to both see and touch. Due to the innovative technology used to create lightly textured surfaces, we recommend the following guidelines below to ensure the highest quality workmanship and an optimal result when polishing texture finish edges.

We are recommending that a mitered edge be used for this material, as it will achieve the best textured appearance. However if any other edge is demanded, special fabrication and brushes will be required for the edge detail.

1. Complete cutting the surface into the required pieces/sections, before proceeding with polishing.
2. Using clamps, attach all pieces required for the final design to a suitable work surface.
3. In cases where the texture finish edge will require gluing, it is recommended to do so prior to polishing.
4. Cut or shape the required edge profile.
5. Smooth and polish the edge shape, following standard polishing procedures and according to regular levels – up to a maximum of 100–120 grain.
6. Polishing of texture finish surfaces must be executed while wet, using a generous amount of water.
7. Polishing a texture finish edge will require approximately the same amount of time as polishing a regular edge.
8. Use a suitable manual, electric or pneumatic angle grinder – with a low RPM of 600–1200; connect it to a source of water and attach a 60 grain **special texture brush**.
9. Begin polishing the texture finish using movements similar to those used when polishing a regular edge.
10. Continue until the edge attains a homogeneous, textured finish.
11. Change the brush to a 120 grain and polish until there are no visible signs remaining of the 60 grain brush.
12. Repeat the above with 400, 800 and 1600 grain brushes or until the edge is consistent with surface texture.

NOTE: Only Certified Fabricators with Texture training can purchase this material.

Honed and Textured Finish

Cleaning and Maintenance Please understand that **Honed, Textured** and **Motivo™** finishes will require more daily maintenance than our polished finishes. Since there is more exposed surface area with honed finishes, metal marks, fingerprints and other signs of daily living will show on these materials. Most of these marks can be easily removed with little effort and cleaning products such as Soft Scrub® Liquid Gel with Bleach. Rinse thoroughly with water.

Honed, Textured and Motivo™ materials may receive slight surface markings during transportation, fabrication, or installation. These marks can usually be removed using the cleaning methods mentioned above.

NOTE: Under no circumstances should any type of stone-impregnating sealers be applied to any CaesarStone surface.

When fabricating any CaesarStone material with a honed finish, take care not to overpolish any edge details beyond the honed finish on the slab face surface. This can normally be achieved by wet polishing using diamond granite or marble pads progressing only to a 400-grit level or until optimum result is obtained.

All CaesarStone fabrication requires fabricators to avoid modifying the factory polish on the face of the slabs. For all finishes, it is recommended that a protective layer, such as tape or plastic, be applied to the slab face to prevent accidental damage to the factory polish during fabrication and installation.

NOTE: A *Special Care Considerations Form* must be signed by the homeowner prior to purchasing these materials.

Adhesives It is important that a flexible adhesive be used, such as 100% clear silicone adhesive be used to secure the countertops to the cabinets, substrate, or to secure CaesarStone backsplashes to the wall. This will allow for limited thermal expansion.

The use of non-flexible adhesives, such as epoxies, liquid nails, or construction adhesive, is not recommended. CaesarStone will not warrant any claims for cracks that are the result of tops being bonded to the base cabinets with non-flexible adhesives.

Follow stone adhesive manufacturer's instructions. Observe good stone working and safety practices at all times and comply with applicable building codes and regulations.

Seaming & Laminations CaesarStone requires that all fabricators follow the individual manufacturer's instructions for the use of their seaming adhesives, including but not limited to the minimum working temperatures for their product. Failure to follow the prescribed instructions will void the CaesarStone warranty.

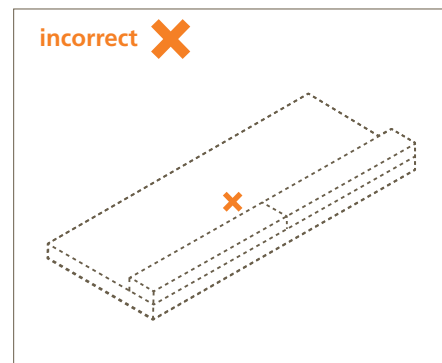
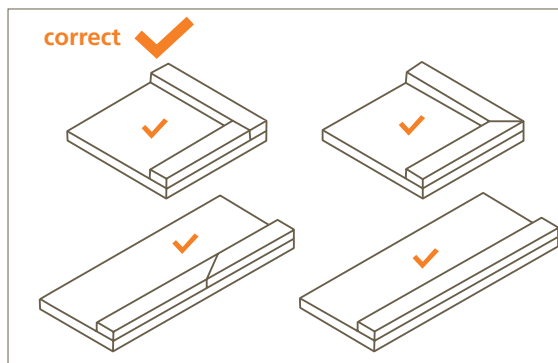
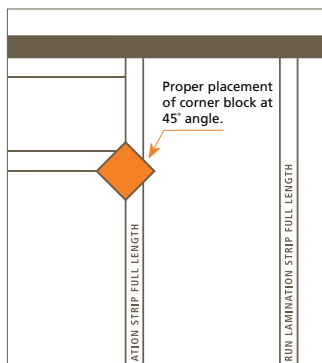
CaesarStone recommends the use of a polyester resin knife grade adhesive as well as the Integra Estone 101 & Tri-Bond 30 cartridge system for all seaming and laminations.

Joint Adhesives In order to achieve a minimally visible seam, the adhesive used must be pigmented to a color similar to that of the material being installed. This can be done using color paste pigments mixed with the adhesive to achieve a color match.

Laminations/Double Edges When laminating, it is important to make sure that the lamination piece is the full length of the top piece and cut at 45° on the corners. If this cannot be done and a joining of the lamination pieces is unavoidable, the joint must be cut at 45°. The use of a mitered end cut reduces stress on the material that may cause stress fractures.

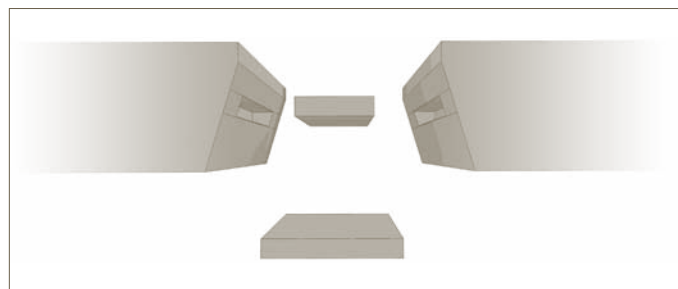
The lamination strip should be cut from the same slab as the counter top surface material to ensure a color match. It's recommended when cutting the piece to be laminated, to add the lamination piece size to your cutting measurements, ensuring that you will have the same length and same color piece for your lamination.

- A 45° corner joint is recommended to minimize the stress on corners.
- Use full-length lamination pieces.
- For very long countertops where a joint is required, ensure that the joint in the lamination piece is at 45° to reduce any stress points.



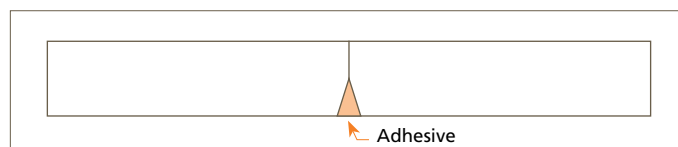
Seaming

- Use a state-of-the-art seam setter tool to make seams as narrow and inconspicuous as possible. Seams should not be more than $\frac{1}{16}$ " wide.
- All seam surfaces should be smooth and free of debris.
- CaesarStone requires the use of colored glue for all seams. This can be accomplished by using one of the premixed Integra colors available or by manually tinting the glue of your choice.
- Grooves should be created in surfaces to be joined to allow space for glue. Extra glue should be placed at all corners and around joints. Note in Pictures A and B.
- Seam locations should be carefully planned to minimize visibility.
- CaesarStone prohibits the surface polishing of seams.
- Never install mechanical fasteners (screws, nails, etc.) into CaesarStone.



Picture A

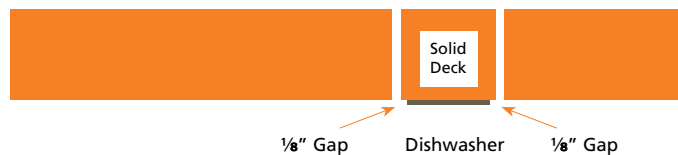
The illustration shows the use of a beveled edge and biscuit joint to strengthen the seam. If using this technique, be sure to bevel only the seaming edge up to 1" behind the exposed surfaces.



Picture B

Joint Positions Seam over dishwasher (not recommended)

- In a case where a seam must be located over a dishwasher, the use of a full deck-isolated support is required. This will allow proper support for the area as well as allowances for thermal movement.
- When installing $\frac{3}{4}$ " (2cm) material the plywood sub top over the dishwasher must be isolated from the rest of the sub top. This should be done by allowing $\frac{1}{8}$ " clearance on either side of the full deck support.
- On seams, miters, and lamination areas, it is necessary to grind notches or grooves on the surfaces to be bonded together. CaesarStone is nonporous and will not absorb the adhesive – these notches provide a space for the adhesive within the joint.



Protective Wear

Wearing an approved face mask is recommended when fabricating CaesarStone (refer to MSDS Page 28, Item 8). Stone dust contains silica, which is dangerous when inhaled. Always cut and polish CaesarStone with wet diamond tools and take appropriate measures to provide efficient ventilation in the work area.

Safety Glasses Always wear approved eye protection when fabricating CaesarStone.

Safety Gloves Always wear approved hand protection when fabricating CaesarStone.

Safety Shoes Always wear approved foot protection when fabricating or installing CaesarStone.

Transportation

Packing for Transport

- Countertop sections are normally heavy and fragile. Consideration must be given to portability and site access when planning and packing for transport.
- Brace all cutouts to avoid flexing of the seams and corners.
- Transport CaesarStone with sections touching face-to-face or back-to-back. Do not allow any parts to slide around during transportation. Make sure the face is always protected and not touching metal, the back of another slab, etc.

Racking for Transport

- Time and skill has been spent in the factory manufacturing a first-class product. Good racking is essential for getting the product to the site in good condition.
- Many rack designs have been made for stone slab transportation devices. Some prefer to have a removable "A" frame that they can hoist off the delivery vehicle.
- The slabs should be securely fastened to the rack by straps. Care should be taken to protect the straps from being damaged or cut by the edge of the slabs.
- At least two people should be taken on the delivery vehicle to get the product onto the site.
- **All racking should have a protective layer between the rack and CaesarStone material.** This will help to prevent scratching or other surface damage during storage or transit.



Integra Color Chart

CaesarStone Colors	Code	Integra Colors
Absolute Noir	6100	Satin Black
Amazon Green	6770	Uba Tuba
Apple Martini	2710	Apple Martini*
Baja	3200	Limestone
Basalt Texture	6185	Satin Black
Bedrock	6370	Brazilian Brown
Black Rocks	4170	Dusk / Flint
Blizzard	2141	Polar White
Blue Ridge	9555	Dusk
Buttermilk	4220	Ecru
Carmel	9350	Alpha Brown
Champagne Limestone	2400	Limestone
Charcoal	9140	Flint
Chocolate Truffle	6350	Desert
Cinder	2020	Cinder*
Coffee Bean	6310	Marone
Concrete	2003	Iron Gray
Copper Abyss	6110	Satin Black
Copper Canyon	9480	Coffee
Crème Limestone	2300	Limestone
Desert Limestone	2200	Limestone
Dusty Stones	4040	Stellar Gray / Raton*
Ebony Reflections	7100	Flint
Eggshell	3141	Newport Gray
Espresso	3380	Espresso
Forest Green	9755	Congo
Gold Abyss	6120	Uba Tuba

CaesarStone Colors	Code	Integra Colors
Jerusalem Sand	4250	Amarillo
Lagos Blue	4350	Slate
Metallic Black	7185	Black
Misty Carrera	4141	Cloud
Mocha	2370	Desert
Mosaici Carbone	7150	Satin Black
Mosaici Marrone	7250	Slate
Mulberry Mist	4450	Mulberry*
Nougat	6600	Newport Gray
Organic White	4600	White
Oyster	9601	White North
Pacific Reflections	7510	Celestial Blue*
Pebble	4030	Oyster
Quartz Reflections	7141	Newport Gray
Raven	4120	Raven
Rosemary	2740	Pistache*
Rosemary (Honed)	2740	Greenstone*
Ruby Reflections	7450	Indus Red
Sandalwood	6260	Sandalwood*
Savannah	9205	Amarillo
Sierra	9255	Diana Pearl
Smoky Ash	6140	Galaxy Black
Tequila Sunrise	2430	Sunrise
Verde	9170	Uba Tuba
White Ash	9260	Stellar Gray
White Sands	3241	Newport Gray

*Custom Color. Ask a representative about availability and details

Installation Instructions

Preparing Base Units/Cabinets Ensure that cabinets are complete and satisfactorily installed. Verify that all cabinets are level. The tops of the cabinets must be flat and true within 1/16" (1.5mm) over 18" (457mm). The cabinets should be affixed to each other and then secured to the back wall. In the case of a dishwasher, make sure that the surrounds of the opening of the counter will have sufficient support. The front edge of any countertop over a dishwasher should always be supported with material matching the installed cabinets to better match the kitchen.

NOTE: If cabinets do not meet the minimum standards, the installer must notify the homeowner or project manager present at the jobsite prior to installation of tops.

Support Below are some guidelines on installation, material, and type of supports:

- CaesarStone must be supported on a strong perimeter frame.
- Front-to-back support within the cabinet should be provided every 24". Plan for front-to-back support strips 2.5"-wide (40mm–100mm) to coincide with cutouts and periodic support. Support must be provided under all countertop joints.

NOTE: Support is required across the top of a dishwasher space and over an under-counter oven.

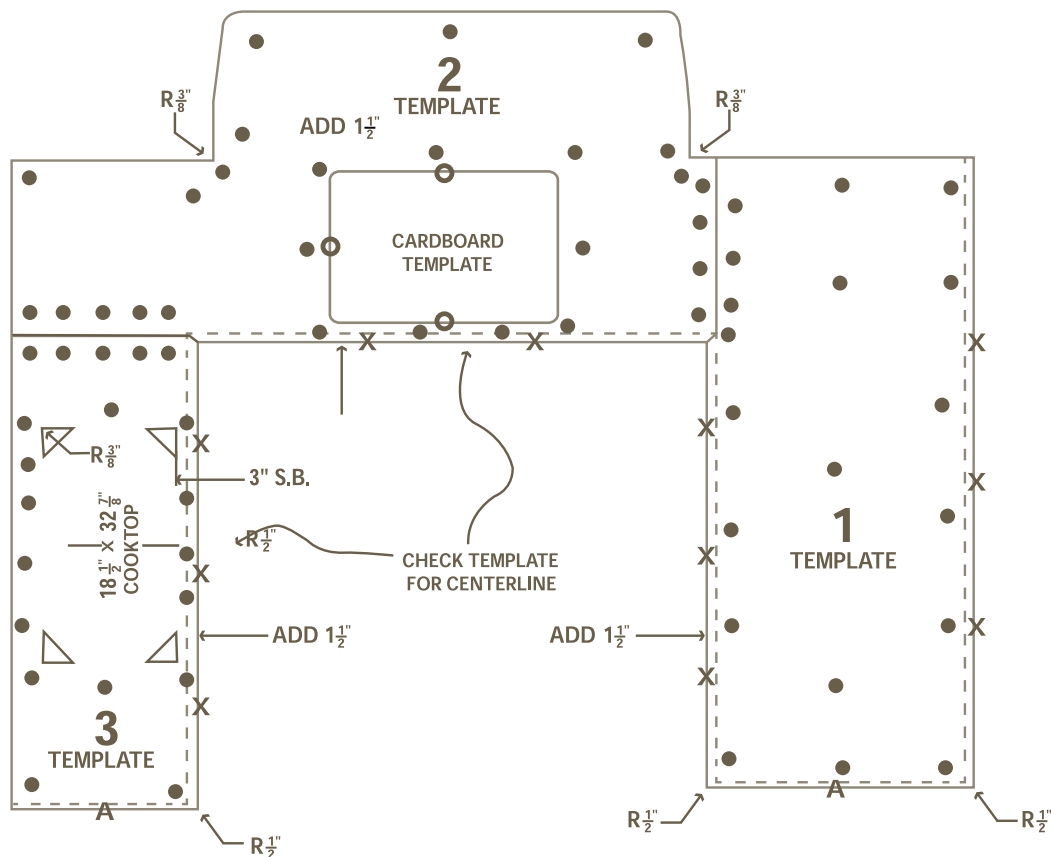
Overhangs As a general guideline, support is required for overhangs of CaesarStone. The following guidelines are for standard cabinets 24" in depth:

2CM (3/4")	2CM (3/4") with 5/8" sub top	3CM (1 1/4")	MATERIAL SUPPORT REQUIRED
Less than 8" (200mm)	Less than 12" (300mm)	Less than 16" (400mm)	No additional support required.
8–16" (200–400mm)	12–20" (300–500mm)	16–24" (400–600mm)	Brackets required at 24" (600mm) intervals.
Over 16" (400mm)	Over 24" (500mm)	Over 24" (600mm)	Legs, Columns or Panels required at 24" (600mm) intervals.

Fitting

- Space should always be allowed as CaesarStone needs room to expand. Each countertop requires at least 1/8" at each wall for expansion and contraction.
- When affixing the CaesarStone surface to the supports, use only dabs of flexible silicone 8–12" apart. Extra adhesive must be placed along all joints and cutouts.
- Mechanical fasteners (screws, nails, etc.) must never be affixed directly onto CaesarStone. Through bolting is permitted.

Countertop Installation We only recommend the use of 100% silicone adhesive for affixing CaesarStone® surfaces to cabinets and for all supports.

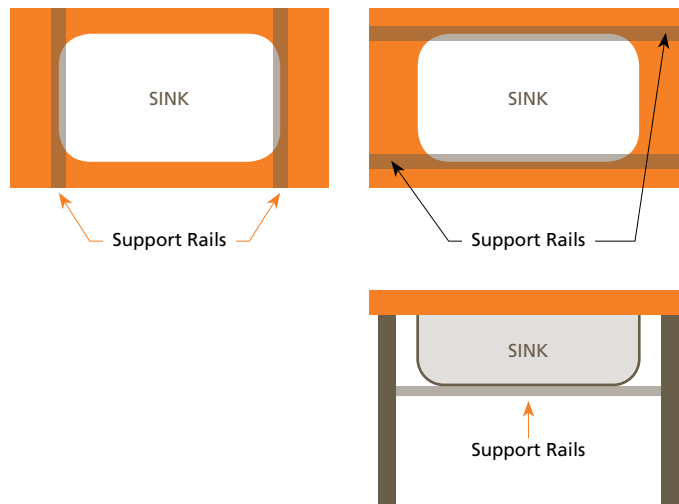


Securing of Countertops

- Fix top using dabs of silicone 8–12" apart.
- Use extra silicone on all corners, joints and around all cutouts
- Support is required on overhangs over 8" (200mm) for 3/4" (2cm) thick slabs and 16" (400mm) on 1 1/4" (3cm) slabs.
- Radius all inside corners on all cutouts.
- Use color matched adhesives to join the seams.
- Do not undercut corners.
- Allow room for expansion between tops and walls.
- All cabinets must be leveled and supported prior to the installation of the tops.
- If the cabinets are on adjustable legs, please ensure that all legs are evenly tensioned to prevent any movement.

Sinks and Basins For all sink or basin installations, whether they are top-mount or under-mount, we recommend that you follow the sink manufacturers' recommendations:

- For cutouts, follow the recommendations on Page 11 of this manual. For under-mount installations, follow the minimum edge profile recommendations around the cutout to reduce the risk of chipping. Our recommended minimum edge profile is a $\frac{1}{8}$ " bevel. Our preferred minimum edge profile is a $\frac{1}{8}$ " (3–4mm) Pencil Round edge.
- Twin basin installations (Top- or Under-mount), where the tap hole is in the countertop, require extra care to ensure that there is sufficient material left for strength. Extra support is required to ensure that no cracking occurs.
- All sink cutouts must be made using drilled radius corners (minimum $\frac{3}{8}$ ") to prevent stress points in the top.
- We recommend that all sink installations be fully supported independent of the CaesarStone top. Please be sure to use a professional sink-setter or support rail system. Plan for front-to-back support strips 2.5"-wide (40mm–100mm) to coincide with cutouts and periodic support. Support must be provided under all countertop joints.



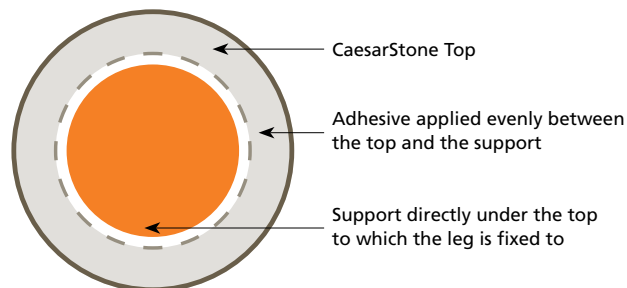
NOTE: Under no conditions can mechanical fasteners (screws, nails, etc.) be affixed directly to CaesarStone.

Under-mount sink installations

- All under-mount sink cutouts must have the inside edges polished to match the surface.
- All under-mount sinks should be sealed to the countertop using 100% silicone.

Table Tops If you are using CaesarStone as a freestanding tabletop, care needs to be taken with the method by which the top is secured to the base. This is of the utmost importance when the table has only one central leg as support. A silicone adhesive may be too flexible to adequately secure the CaesarStone top to the base.

In this situation we would recommend a stronger, more rigid adhesive be used (such as a construction adhesive like polyurethane (Sika-Flex) that is strong yet still flexible) to ensure that the top is properly secured to the base.



Wall Applications Structural requirements for CaesarStone require that wall surfaces to be covered be sound, secure, rigid and conform to all applicable laws and engineering practices. Maximum allowable deflection is L/360 and should be uniform over the length of the span. All surfaces must be true and level within 1/8" over ten feet.

CaesarStone recommends only the use of latex thin-set mortar adhesive or epoxy adhesive and grout for all wall applications.

All bedding and grouting mortars should be weather, frost, shock, and chemical-resistant, and meet the following physical requirements:

Compressive Strength:	Thick-bed mortar	3000 PSI Minimum
Compressive Strength:	Thin-bed, bonding, grouting mortars	500 PSI Minimum
Tensile Strength:	Thin-bed, bonding, grouting mortars	500 PSI Minimum
Water Absorption		4%
Ozone Resistance:	200 hrs @ 200ppm	No loss of strength
Smoke Contribution Factor		0
Flame Contribution Factor		0

- The finished mortar and grout should be resistant to urine, diluted acid, diluted alkali, sugar, brine and food waste products.
- CaesarStone can be applied over concrete, block and masonry-type surfaces, gypsum wallboard, plasters, cement backer board, plywood, asphalt, and steel with proper preparation and the use of appropriate adhesives and grout.
- CaesarStone and its setting and grouting mortars do not constitute a waterproof barrier and should not be considered a replacement for a waterproof membrane. For information on thin, load-bearing waterproof membranes, consult your preferred supplier.
- CaesarStone surfaces to be bonded must be free of dust, oil, grease, paint, tar, wax, curing agents, primers, sealers, form release agents, or any other deleterious substances which may act as bond barriers.
- The installer is responsible for ensuring the removal of any such contaminant prior to the commencement of CaesarStone installation.
- All mortar additives, epoxy adhesives, and grouts should be from one manufacturer to ensure compatibility.
- All CaesarStone should be handled in a manner to avoid chipping, breakage or the intrusion of foreign matter.
- Handle, store, mix and apply all setting and grouting materials in strict compliance with the manufacturers directions.
- Observe good stone working and safety practices at all times and comply with applicable building codes and regulations.

Finishing Touches If further construction work is to be performed at the job site after the installation of the surface is complete, ensure that the CaesarStone surface is properly protected by covering the entire top with corrugated cardboard or another protective material.

Please make your customer aware that any successive trades must **not** use the new countertop as a workbench, a stepping or a standing platform, and that any trades using solvents or adhesives should take due care to avoid and/or remove any spills created by their solvents or adhesives.

We strongly recommend that your customer confirm, in writing, their satisfaction with the material and workmanship at the end of the job to cover you against damages caused by others.

Returning Slabs Any slab that is not suitable should be returned for credit or exchange. This can only be done providing the slab has not been altered in any way. If returned within seven days, no restocking fee is applied. After seven days a restocking fee may apply.

Batch Tracking Although we do our best to record all batches that are sold, it is your responsibility to maintain a record of the batch number as listed on the back of the slab. We cannot guarantee that we will always be able to supply you this information on invoices in the future.

OSHA The Distributor has an OSHA Policy in place to ensure the safety of all persons on our premises. All visitors must observe any direction given by our staff and also follow any warning signs that are posted throughout the warehouse.

Driver Requirements

- Drivers should stay with their vehicles and ensure the slabs being loaded are suitable.
- Drivers are not to wander through the warehouse unless accompanied by an authorized person.
- Contract Drivers should be made aware of which orders are to be collected. This is especially important when there are several orders pending pickup or delivery. The Distributor will not be responsible for extra charges for goods missed on the initial delivery.

Care and Maintenance

A hard, nonporous surface makes CaesarStone simple to clean. In most cases, soap and water or a mild detergent is all that is required to maintain its luster. If necessary, use a nonabrasive cleaning product such as Method® Daily Polish Spray or Method® Daily Stone Surface Wipes. Nail polish should be removed with nail polish remover, while other adhered materials like food, gum, or dried paint can be scraped away with a plastic putty knife. Thoroughly rinse the surface with clean water to remove residue.

Stubborn Stains or Dried Spills Use a soft cloth with warm water and mild soap or detergent. If needed, apply common, nonabrasive household cleaners such as Soft Scrub® Liquid Gel with Bleach or Comet® Soft Cleanser Scratch-Free Cream with Bleach. To avoid dulling the surface's shine, make sure to use a nonabrasive cleaner and use circular strokes when applying any cleaner to the surface. Thoroughly rinse the surface with clean water after any cleaning agent is used and dry with a soft cloth.

NOTE: Do not use cleaning products that have a high pH Level (over 8), such as oven cleaner or paint remover, as they may etch and damage the surface.

Honed, Textured and Motivo™ Finish Cleaning and Maintenance Please understand that Honed, Textured and Motivo™ finishes will require more daily maintenance than our polished finishes. Since there is more exposed surface area with these finishes, metal marks, fingerprints and other signs of daily living will show on honed material. Most of these marks can be easily removed with little effort and cleaning products such as Soft Scrub® Liquid Gel with Bleach. Thoroughly rinse the surface with clean water after any cleaning agent is used and dry with a soft cloth.

Heat Resistance CaesarStone can tolerate moderately hot temperatures for brief periods of time. Prolonged exposure will result in discoloring or other types of damage.

Please inform your customers that they should avoid direct contact between hot pots and the CaesarStone surface. Excessive localized heat may damage the surface or cause hairline cracks to appear. We always require using an insulator/hot pad/trivet especially when using cooking units like electric fry pans/woks/kettles.

Tough, Yes – Indestructible, No As with any surface, CaesarStone can be permanently damaged by exposure to strong chemicals and solvents that undermine its physical properties. Do not use products that contain trichloroethane or methylene chloride, such as paint removers or strippers.

Avoid any highly aggressive cleaning agents like oven/grill cleaners and dishwasher agents that have high alkaline/pH levels. Products containing oils or powders may leave a residue and should be rinsed off thoroughly.

Should your surface accidentally be exposed to any of these damaging products, rinse immediately with water to neutralize the effect.

Special Care Considerations Form

Special Care Considerations for Honed/Textured/Motivo™ Finishes



CaesarStone is proud to offer select colors in a **Honed**, **Textured** and **Motivo™** finish.

Please note that **Honed**, **Textured** and **Motivo™** finishes will require more daily maintenance than our polished finishes. Since there is more exposed surface area with these finishes, metal marks, finger prints, and other signs of daily living will be more apparent, especially on darker colors. However, superficial marks like these can be removed with little effort by using nonabrasive cleaning products such as Soft Scrub® Gel with Bleach Cleanser or Comet® Soft Cleanser Scratch-Free Cream. Rinse thoroughly with water.

By signing this document, you agree that the properties of these unique finishes have been fully explained to you, and that you understand that more frequent cleaning may be required to keep the product looking new and free of marks. You also understand that while CaesarStone has a Residential Lifetime* Warranty, this warranty covers failures caused by product defects when the material is installed by a CaesarStone Certified Fabricator. Temporary marks that are common on these finishes are not covered by our CaesarStone warranty.

For additional warranty information, please refer to the Residential Lifetime* Warranty and Care and Maintenance sections of the CaesarStone USA website at www.CaesarStoneUS.com.

NAME OF PURCHASER		NAME OF DEALER / FABRICATOR	
SIGNATURE OF PURCHASER		DATE	SIGNATURE OF SALESPERSON
			DATE

* Some restrictions apply. Copies of our Lifetime Warranty are available at authorized dealers. Learn more by visiting www.CaesarStoneUS.com or calling 877.978.2789.

Exclusions from the Lifetime Warranty given to each purchaser of a countertop from the fabricator

The following items or events will void the Lifetime Warranty:

- ☐ Any fault that is visible at the time of fabrication or installation and has not been cut around during fabrication.
- ☐ On Green label slabs: all visual imperfections.
- ☐ Any claims arising from not batch-matching the slabs in the installation.
- ☐ Any claims arising from not properly checking color between slabs, even if the batch numbers are the same.
- ☐ Changing the original surface finish of the slabs by repolishing, honing, sealing, or otherwise altering the factory finish.
- ☐ Any creative use of the slabs, such as bending or curving. Although this is possible, it is not a process that the Distributor has control over and therefore the Distributor cannot accept responsibility for it.
- ☐ Polishing the back of the slabs (except for laminations).
- ☐ Milling or reducing the thickness from the back of the slab.
- ☐ Securing mechanical fasteners directly onto the slabs.
- ☐ Removing the CaesarStone product information from the back of the slabs.
- ☐ Any chips or cracks as a direct result of cutting or polishing the slabs dry, not following the recommended minimum edge profile details or the mitered edges where the joint is not cut correctly (Page 14).
- ☐ Claims for scratches or damage to the surface after installation.
- ☐ Any mechanical damage caused by hitting or knocking the slabs.
- ☐ Any chemical damage.
- ☐ Not allowing sufficient room for expansion.
- ☐ Any failure due to inadequate support.
- ☐ Any failure due to improper fabrication and or installation.

Residential Lifetime Warranty

U.S. Quartz Products, Inc. will warrant from the original date of installation material that fails due to any manufacturing defect when fabricated and installed by a CaesarStone Certified Fabricator. This warranty applies to the repair or replacement of failed material that has been permanently installed in your residence. The option to repair or replace the material is at the sole discretion of U.S. Quartz Products, Inc.

This Residential Lifetime Warranty is available only to the original owner of a single family residence in which CaesarStone has been originally installed. In the case of a newly constructed single-family residence, this warranty is available to the “first” owner purchasing the residence with CaesarStone permanently installed and is transferable according to the terms and conditions stated below.

Terms and Conditions

This warranty applies to product that was installed after February 15, 2008.

- A. This warranty applies only to CaesarStone quartz surfacing materials and does not apply to any other products, including other quartz surfacing products manufactured or supplied by any other party, except U.S. Quartz Products, Inc.
- B. This warranty applies only to CaesarStone quartz surfacing materials that have been permanently installed in the interior of single-family residences and have not been moved from their original installation. If after or during installation you decide that you do not like the color or finish you selected, that decision is not covered under this warranty.
- C. This warranty does not cover any residence where the owner is not the occupant.
- D. This warranty does not cover materials and/or services that have not been paid in full.
- E. This warranty applies only to materials that have been maintained according to the CaesarStone Care & Maintenance guidelines. Care & Maintenance guidelines are available at www.CaesarStoneUS.com
- F. To request service under this warranty you must contact the company who sold you CaesarStone or contact U.S. Quartz Products, Inc. directly at (877) 978-2789 within thirty (30) days of the failure of CaesarStone quartz surfacing materials.
- G. Following installation, you must register your product within thirty (30) days in order to activate your warranty. Simply complete the online form made available at <http://warranty.caesarstoneus.com>. In the event that no record of your warranty is on file, you must provide proof of purchase in the form of a copy of your original receipt or invoice showing the name of the Owner, Authorized Dealer and CaesarStone Certified Fabricator. Upon receipt of your original receipt or invoice showing the name of the Owner, Authorized Dealer and

CaesarStone Certified Fabricator, U.S. Quartz Products, Inc. will fully honor this warranty even though no warranty is on file. You must agree to cooperate with U.S. Quartz Products, Inc. or its authorized agents in the inspection of the product and assist us in efforts to perform our obligations under this warranty.

- H. This warranty is transferable under the following conditions:
The original or first owner must have initially registered the warranty with U.S. Quartz Products as specified in item F. The original or first owner must submit to U.S. Quartz Products Inc. in writing the name, address and phone number of the new owner. The new owner will receive a prorated 10-year limited warranty, which is prorated from the original date of installation. In no event will the transferred warranty exceed ten (10) years from the date of the original installation.
- I. In the event that CaesarStone quartz surfacing materials fail due to a manufacturing defect, U.S. Quartz Products, Inc. will, at its sole discretion, repair or replace such materials. U.S. Quartz Products, Inc. will seek to obtain the best possible result, whether we decide to repair or replace your installation. However, exact color match is never guaranteed. All decisions regarding this warranty are at the sole discretion of U.S. Quartz Products, Inc. No representative, dealer, salesperson, distributor, fabricator or any other person is authorized to make any warranty or promises on behalf of U.S. Quartz Products, Inc. with respect to CaesarStone quartz surfacing products.

Exclusions

- 1. This warranty does not cover use for any commercial purposes. Commercial use includes but is not limited to, use in a store, rental properties, office or any other place of business.
- 2. This warranty does not cover products installed in any outdoor application.
- 3. This warranty does not cover products used as flooring material.
- 4. This warranty does not cover improper use or abuse. Improper use or abuse includes, but is not limited to, damage from mishandling of the product, damage from excessive heat or uneven exposure to weather conditions, physical or chemical abuse and damage from improper care and maintenance.
- 5. This warranty does not cover chips or other excessive impact damage in the product.
- 6. This warranty does not cover scratches. CaesarStone is a very hard material and highly scratch resistance but not scratch proof. Proper care must be exercised including the use of a cutting board as part of your care and maintenance.
- 7. This warranty does not cover routine maintenance.

Routine maintenance includes but is not limited to, minor conditions such as removing stains and water spots by following the techniques specified in the CaesarStone online Care & Maintenance Guidelines at www.CaesarStoneUS.com

8. This warranty does not cover failures due to fabricators/installers not following the prescribed fabrication and installation procedures as outlined by U.S. Quartz Products, Inc. Improper fabrication and/or installation is the sole responsibility of the fabricator and/or installer.
9. This warranty does not cover any defects that were visible at the time of fabrication and were not avoided during fabrication. Fabricators are required to perform a visual inspection of all materials prior to fabrication and again prior to installation.
10. This warranty does not cover seam appearance or seam performance, adhesives, caulk or other accessory items. Once the product is installed, the two main reasons for seam separation or cracking are the shifting or movement of the substrate, cabinets or foundation, and thermal shock. Thermal shock can occur when a hot pan, dish or other receptacle or object is left on the countertop for more than a brief period. Trivets or hot pads should always be used. These issues are not considered material defects and are subject to proper care and maintenance by the owner.
11. This warranty does not cover any chemical damage.
12. This warranty does not cover any creative use of the material including bending or curving.
13. This warranty does not cover material that has been milled or reduced in thickness.
14. This warranty does not cover the installation of sinks.
15. This warranty does not cover securing mechanical fasteners directly into the material.
16. This warranty does not cover any failures due to inadequate support for the installation. This includes overhangs in excess of the recommendations provided by CaesarStone which are inadequately supported.
17. This warranty does not cover any chips or cracks that are a result of "dry" cutting or polishing.
18. This warranty does not cover chips or cracks that are a result of not following the minimum requirements for edge details.
19. This warranty does not cover mitered edges where the joint is not cut correctly.
20. This warranty does not cover the altering of any factory applied finish. Only colors listed as available in our brochure, sample book or on our website as "honed" are eligible under this warranty. Any issues arising from the practice of "in-shop" honing are the sole responsibility of the fabricator.

21. This warranty does not cover temporary marks that are common to honed finishes such as metal marks, fingerprints or other signs of daily living. A signed "Special Care Considerations for CaesarStone Honed Finishes" form is required to be submitted to CaesarStone or its assigns to receive coverage under this warranty. This form must be signed by the end user/owner of the finished installation.
22. This warranty does not cover additional modifications such as plumbing, electrical, tile, cabinets, flooring etc that may be necessary to repair or replace the CaesarStone product covered under this warranty.
23. This warranty does not cover natural variations in the color, size, shape and distribution of the pattern of the natural quartz or the natural variations in background tone. These characteristics are inherent and unique characteristics of the product. Color samples provided to consumers, dealers and fabricators are only representative and not an exact replication of what will be installed in your home.
24. This warranty does not cover what is referred to as spots or blemishes smaller than a U.S. ten (10) cent piece. A certain level of spots or blemishes are inherent in the manufacturing process and do not affect the structural integrity of the material.
25. CaesarStone materials contain important product information on the back of each slab. Removing this product information will void the warranty.

U.S. Quartz Products, Inc. is not responsible for damage or injury caused in whole or in part by acts of God, job site conditions, and architectural, engineering design, and structural movement, acts of vandalism or accidents.

U.S. Quartz Products, Inc. shall not be responsible in either contract or tort for any loss of direct, indirect, consequential, incidental, special, exemplary, or punitive damages arising out of the use or the inability to use the products covered by this warranty. Some states do not allow exclusion or limitation of incidental damages, so the above limitations or exclusions may not apply to you.

THE FOREGOING IS THE COMPLETE WARRANTY FOR CAESARSTONE AND SUPERSEDES ALL OTHER WARRANTIES AND REPRESENTATIONS, WHETHER ORAL OR WRITTEN. EXCEPT AS EXPRESSLY SET FORTH ABOVE, NO OTHER WARRANTIES ARE MADE WITH RESPECT TO CAESARSTONE AND U.S. QUARTZ PRODUCTS, INC. EXPRESSLY DISCLAIMS ALL WARRANTIES NOT STATED HEREIN, INCLUDING, TO THE EXTENT PERMITTED BY APPLICABLE LAW, ANY WARRANTY THAT MAY EXIST UNDER NATIONAL, STATE, PROVINCIAL OR LOCAL LAW INCLUDING BUT NOT LIMITED TO ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SOME STATES OR OTHER JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

CaesarStone MSDS

1. Product and Company Description

U.S. Quartz Products
CaesarStone USA
6840 Hayvenhurst Ave.#100
Van Nuys, CA 91406
Tel: 818.779.0999 or 877.9QUARTZ
Fax: 818.779.0099
info@CaesarStoneus.com

For Product Information/Emergency Contact:

U.S. Quartz Products: 818.779.0999 or 877.9QUARTZ

Product Use: CaesarStone Quartz Surfacing and Concetto®
Natural Stone Surfacing

2. Hazards Identification

Emergency Overview:

Appearance/Odor Multi-colored engineered stone with no odor.

Potential Health Effects:

Acute Eye Product in finished form does not present a health hazard via this route of entry. Dust, and flying particles generated during cutting, grinding and forming may cause irritation and injury.

Acute Skin Dust generated from this product may cause skin irritation.

Acute Inhalation Dusts from product may cause irritation to respiratory tract, nose, throat and lungs.

Acute Ingestion Not considered a potential health hazard via this route of entry. This product may cause gastrointestinal irritation if dust is swallowed.

Chronic Exposure The adverse health effects from crystalline silica exposure – silicosis, cancer, scleroderma, tuberculosis, and nephrotoxicity are chronic conditions.

Aggravation of Pre-existing Conditions Not Determined.

3. Hazardous Chemical Composition

Component	CAS#	% Composition
Crystalline silica (quartz) and other natural stone	14808-60-7	>90
Resins and trace minerals including: Al ₂ O ₃ , Fe ₂ O ₃ , TiO ₂ , CaO, MgO, Na ₂ O, K ₂ , PtO ₅	N/A	Balance

4. First Aid Measures

Eye Exposure Immediately flush eyes with copious amounts of water for a minimum of 15 minutes. Seek immediate medical attention if adverse effects persist.

Skin Exposure Wash skin with soap and water. Remove exposed or contaminated clothing, taking care not to contaminate eyes. Seek medical attention if adverse effect occurs.

Inhalation Expose person to fresh air.
If necessary, use artificial respiration.

Ingestion If the material is swallowed, seek medical attention or advice.

5. Fire Fighting Measures

Auto Ignition At temperatures >490°C, this product will auto ignite.

Flash Point 490°C

Flammability Limits (vol/vol%) Lower: ND Upper: ND

Extinguishing Media Use appropriate extinguishing media for surrounding fire.

Special Firefighting Procedures Firefighters should wear full firefighting turnout gear including a NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards When heated to decomposition, may release various hydrocarbons, carbon dioxide, carbon monoxide and water. Fumes of metal oxides and mica particles could also be released.

6. Accidental Release Measures

Cleanup and Disposal of Spill Solid slabs can simply be gathered as necessary. If large amounts of dust or wastes is created by the cutting process, vacuum or sweep up material avoiding dust generation, or dampen spilled material with water to avoid airborne dust. Wear sufficient respiratory protection and protective clothing where necessary. If large quantities of this material enter the waterways contact the Environmental Protection Authority or local Waste Management Authority. Dispose of waste in accordance with local, state and federal regulations.

7. Handling and Storage

Handling/Storage Avoid breathing dust. Wash hands before eating, drinking, smoking, or using toilet facilities. Wash thoroughly after work using soap and water. Good industrial hygiene practices should be followed when handling this material. Product is heavy and breakable; handle with care to avoid injury and prevent damage.

8. Exposure Controls/Personal Protection

Exposure Guidelines:

Component Crystalline silica

ACGIH 0.025 mg/m³ TWA (respirable fraction)

NIOSH 0.05 mg/m³ TWA (respirable dust)

OSHA-PELs

((250)/(%SiO₂ + 5) mppcf TWA (respirable));

((10)/(%SiO₂ + 2) mg/m³ TWA (respirable));

((30)/(%SiO₂ + 2) mg/m³ TWA (total dust))

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.

Respiratory Protection If respiratory protection is needed, use only the protection authorized in the U.S. Federal OSHA Standard (29 CFR 1910.134), applicable U.S. State regulations, or the Canadian CSA Standard Z94.4-93 and applicable standards of Canadian Provinces.

Eye/Face Protection During cutting, grinding or sanding operations safety glasses with side shields or goggles should be worn.

Skin Protection During cutting, grinding or sanding operations use body protection appropriate for the task. including work gloves if handling sharp or rough edges and steel-toed shoes if lifting product.

9. Physical and Chemical Properties

Physical Appearance:	Multi-colored engineered stone
Odor:	None
pH:	NA
Specific Gravity/Density:	2.4
Water Solubility:	Insoluble
Melting Point:	NA
Freezing Point:	NA
Boiling Point:	NA
Vapor Pressure:	NA
Percent Volatiles by Volume:	NA
Evaporation Rate:	NA
Viscosity:	ND
Flash Point:	490°C.
Explosion Limits:	Lower: ND Upper: ND
Auto Ignition Temp:	At temperatures >490°C, this product will auto ignite.

10. Stability and Reactivity

Chemical Stability Stable

Conditions to Avoid None

Materials/Chemicals to be Avoided This product is incompatible with hydrofluoric acid. Silica will dissolve in hydrofluoric acid and produce the corrosive gas silicon tetrafluoride.

Hazardous Decomposition Products Upon decomposition, various hydrocarbons, carbon dioxide, carbon monoxide fumes, and water may be released.

Hazardous Polymerization Will not occur.

11. Toxicological Information

Acute Effects

For Crystalline Silica: Inhalation (human) LCLo: 0.3mg/m³/10Y
Inhalation (human) TCLo: 16mppcf/8H/17.9Y
Intermittent; focal fibrosis, (pneumoconiosis), cough, dyspnoea.
Inhalation (rat) TCLo: 50mg/m³/6H/71W
Intermittent; liver tumors

Chronic Effects

Silicosis The major concern is silicosis, caused by the inhalation and retention of respirable crystalline silica dust.

Symptoms include:

Chronic or ordinary silicosis is the most common form of silicosis, and can occur after many years of exposure to relatively low levels of airborne respirable crystalline silica dust. It is further defined as either simple or complicated silicosis.

Simple silicosis is characterized by lung lesions (shown as radiographic opacities) less than 1 centimeter in diameter, primarily in the upper lung zones. Often, simple silicosis is not associated with symptoms, detectable changes in lung function, or disability.

Simple silicosis may be progressive and may develop into complicated silicosis or progressive massive fibrosis (PMF). Complicated silicosis or PMF is characterized by lung lesions (shown as radiographic opacities) greater than 1 centimeter in diameter. Although there may be no symptoms associated with complicated silicosis or PMF, the symptoms, if present, are shortness of breath, wheezing, cough and sputum production. Complicated silicosis or PMF may be associated with decreased lung function and may be disabling. Advanced complicated silicosis or PMF may lead to death. Advanced complicated silicosis or PMF can result in heart disease secondary to the lung disease (cor pulmonale).

Accelerated silicosis can occur with exposure to high concentrations of respirable crystalline silica over a relatively short period; the lung lesions can appear within five (5) years of the initial exposure. The progression can be rapid. Accelerated silicosis is similar to chronic or ordinary silicosis, except that the lung lesions appear earlier and progression is more rapid.

Acute silicosis can occur with exposures to very high concentrations of respirable crystalline silica over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.

Carcinogenicity The International Agency for Research on Cancer (IARC) concluded that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)." The National Toxicology Program (NTP), in its Ninth Annual Report on Carcinogens concluded that silica, crystalline (respirable) is "known to be a carcinogen, based on sufficient evidence in experimental animals and in humans." The U.S. Occupational Safety and Health Administration (OSHA) does regulate crystalline silica (quartz) as a carcinogen.

The American Thoracic Society position on the issue of silica carcinogenicity was published in *Adverse Effects of Crystalline Silica Exposure*, American Journal of Respiratory and Critical Care Medicine, Vol. 155, pp. 761–765 (1997). The official statement

concluded that “the available data support the conclusion that silicosis produces increased risk for bronchogenic carcinoma. The cancer risk may also be increased by smoking and other carcinogens in the workplace.”

Scleroderma There is evidence that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of scleroderma, an immune system disorder manifested by a fibrosis (scarring) of the lungs, skin and other internal organs.

Tuberculosis Individuals with silicosis are at increased risk to develop tuberculosis, if exposed to persons with tuberculosis.

Nephrotoxicity There are several recent studies suggesting that exposure to respirable crystalline silica or that the disease silicosis is associated with the increased incidence of kidney disorders.

Mutagenicity No Data

Reproductive Effects No Data

Developmental Effects: No Data

12. Ecological Information

Environmental Fate: Not Determined

Environmental Toxicity: Not Determined

ISO 14001 Certification: CaesarStone is ISO 14001 certified for Environmental Management Systems.

13. Disposal Considerations

Waste Disposal Method: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose in accordance with federal, state and local requirements.

14. Transportation Information

US Department of Transportation

Proper Shipping Name: Not Regulated

Hazard Class: Not Regulated

ID Number: Not Regulated

Packing Group: Not Regulated

15. Regulatory Information

Federal Regulations

SARA Title III Hazard Classes:

Fire Hazard:	No
Reactive Hazard:	No
Release of Pressure:	No
Acute Health Hazard:	No
Chronic Health Hazard:	Yes

TSCA

All components of this product are on the TSCA inventory or are exempt from TSCA Inventory requirements

U.S. State Regulations

California Prop 65 List: Crystalline silica (quartz) is classified as a substance known to the state of California to be a carcinogen.

16. Other Information

National Fire Protection Association NFPA(R) and Hazardous Materials Identification System (HMIS) Hazard Ratings:

Health Hazard:	1
Flammability:	0
Reactivity:	0

The information contained herein is based on the data available to us and is believed to be correct. However CaesarStone and U.S. Quartz Products make no warranties expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof.

Key Legend Information:

N/A	Not Applicable
ND	Not Determined
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety and Health Administration
TLV	Threshold Limit Value
IDLH	Immediately Dangerous to Life and Health
PEL	Permissible Exposure Limit
TWA	Time-Weighted Average
STEL	Short-Term Exposure Limit
NTP	National Toxicology Program
IARC	International Agency for Research on Cancer



Corporate Office
6840 Hayvenhurst Ave., Suite 100
Van Nuys, CA 91406 USA

T 877 9QUARTZ
F 818 779 0099

info@caesarstoneus.com

www.CaesarStoneUS.com

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Quartz Surfaces